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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,470	10/22/2003	Don Kennard	NOBELB.063DV1	5956
20995 7590 12/12/2007 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER BUMGARNER, MELBA N	
			ART UNIT 3732	PAPER NUMBER
			NOTIFICATION DATE 12/12/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com  
eOAPilot@kmob.com

## Office Action Summary

**Application No.**

10/691,470

**Applicant(s)**

KENNARD, DON

**Examiner**

Melba Bumgarner

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 39-57 and 62-69 is/are pending in the application.
- 4a) Of the above claim(s) 63-69 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-57 and 62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claim 64-69 and amended claim 63 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the original claims are directed to a dental implant comprising body segment with varying length and thread diameter, the claims above are directed to a dental implant comprising body segment having feature of threads with flat apical surface increasing in width.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 63-69 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 39, 45-52, 56, 57 and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Bulard et al. (6,716,030). Bulard et al. et al. disclose a dental implant elongated along an implant axis comprising an abutment 41 adapted to bond with a dental prosthesis, a neck segment 49 connected to the abutment, a body segment 43 connected to the neck segment, having threads extending helically about the implant axis and thread diameter tapering non-

linearly from a maximum adjacent the neck segment to a minimum at a distal end, and a torque engagement segment 42 positioned below the neck segment. The implant of Bulard et al. is made of the material, titanium or titanium alloy, of the claimed invention; therefore, it would be as flexible in the neck segment as the claimed invention. The thread diameter is within the range of about 1 to 2 mm and the body segment is at least 12 mm in length (about 10 to 19 mm). The length of the body segment is capable of being approximately equal to the thickness of the cortical layer of the bone in which the implant is to be emplaced. The neck segment and abutment form an extension from the body segment with a length of greater than about 5 mm (about 2.0 to 5.5 mm). The total length along the axis is greater than 20 mm (about 15 to 25 mm). The implant comprises a plurality of flat facets on the outer surface of the neck segment as shown similar to claimed invention. The engagement segment comprises a plurality of flat surfaces.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bulard et al. in view of Hahn et al. (5,795,160). Bulard et al. disclose a dental implant that shows the limitations as described above; however, they do not show the threaded body segment comprising an upper flared section. Hahn et al. show the threaded body segment comprises an upper flared section proximal to the neck portion, an intermediate section and a tapered lower

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section, the lower section having a smaller angle of taper as compared to the upper section. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the implant of Bulard et al. to have the tapering of Hahn et al. in order to install the implant with lateral compression of cancellous tissue and without exerting undue lateral force on the bone in view of Hahn et al. It would have an obvious matter of choice to one of ordinary skill in the art at the time the invention was made as to the range of taper angle of the threads and the neck segment narrower than the abutment. The threads of the intermediate section have a constant diameter.

6. Claims 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bulard et al. in view of Christensen (3,466,748). Bulard et al. disclose a dental implant that shows the limitations as described above; however, they do not show the thread depth tapering.

Christensen shows a dental implant having a thread depth tapering from a maximum thread depth adjacent the neck segment to a minimum thread depth adjacent the distal end. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the thread depth of Christensen in order to increase stability and decrease patient trauma in view of Christensen. It would have been an obvious matter of choice to one of ordinary skill in the art as to the specific depth and pitch of the body segment.

#### ***Response to Arguments***

7. Applicant's arguments with respect to the rejected claims have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached at 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melba Bumgarner  
Primary Examiner